[SYSTEM ON CHIP]

Abstract of Disclosure

A system on chip (SOC) characterized by nitride read only memory (NROM) and read only memory (ROM) has a P-type substrate, and at least an NROM area and a read only memory area defined on the surface of the substrate. ONO layers are disposed along a first direction and positioned in the NROM area and the read only memory area. A bit line is positioned in the substrate between each ONO layer. Oxide layers are positioned atop each bit line. A plurality of word lines disposed along a second direction covers each ONO layer in the NROM area and the read only memory area, so as to form a plurality of NROM cells at the intersection of the NROM area and each ONO layer, and to form a plurality of read only memory cells at the intersection of the read only memory area and each ONO layer. A doping area is optionally positioned at a bottom side of a read only memory cell, so as to cause the read only memory cell to have at least two different threshold voltages and to form ROM code.

Figures